

Case 3221

***Opomyza* Fallén, 1820 (Insecta, Diptera): proposed conservation of usage by designation of a neotype for its type species *Musca germinationis* Linnaeus, 1758**

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Abstract. The purpose of this application is to conserve the accepted understanding and usage of the generic name *Opomyza* Fallén, 1820 for a group of flies (family OPOMYZIDAE) by designating, under Article 75.6 of the Code, a neotype for its type species *Musca germinationis* Linnaeus, 1758. The application also refers to other nomenclatural acts carried out under the Code in relation to the the genera *Balioptera* Loew, 1864, *Geomyza* Fallén, 1810 and *Palloptera* Fallén, 1820.

Keywords. Nomenclature; taxonomy; OPOMYZIDAE; *Opomyza*; *Balioptera*; *Geomyza*; *Palloptera*; *Opomyza germinationis*; flies; Holarctic.

1. Linnaeus (1758, p. 600) proposed the name *Musca germinationis* for a species of fly currently known as *Palloptera umbellatarum* (Fabricius, 1775, p. 785) (family PALLOPTERIDAE). *Palloptera umbellatarum* (Fabricius, 1775) is thus an invalid name as it is a junior subjective synonym of *Musca germinationis* Linnaeus, 1758.

2. Linnaeus (1767, p. 996) proposed the name *Musca combinata* for specimens of a fly currently known as *Opomyza germinationis* (Linnaeus, 1758) (family OPOMYZIDAE). Cogan & Dear (1975, p. 177) and the current authors have studied the type material of *Musca germinationis* and *Musca combinata*. These studies have indicated that authors subsequent to Linnaeus have confused these two names and also incorrectly applied them to species other than those intended by Linnaeus.

3. Fallén (1810, p. 18) erected the genus *Geomyza* to accommodate the single species *Musca combinata* Linnaeus, 1767, thus making it the type species by monotypy. Our examination of the type material of *Musca combinata* and the material of *Geomyza combinata* sensu Fallén revealed that the two species are not conspecific. *Geomyza combinata* sensu Fallén, 1810 is in fact the species known as *Geomyza hackmani*

Nartshuk, 1984 (p. 57). Since the type species of the genus *Geomyza* (*Musca combinata* Linnaeus, 1767) was misidentified and fixation of the species actually involved as the type species serves stability, *Geomyza hackmani* Nartshuk, 1984 is herewith designated as the type species of the genus *Geomyza* in accordance with Article 70.3.2 of the Code and no action by the Commission is necessary.

4. Loew (1864, p. 347), overlooking the publication by Fallén (1810) (see para. 3 above), erected the genus *Balioptera* to accommodate the species *Musca combinata* Linnaeus, 1767, *Opomyza apicalis* Meigen, 1830 and six other species. Coquillett (1910, p. 513) designated *Musca combinata* Linnaeus, 1767, the first species mentioned by Loew, as the type species of *Balioptera*. In Loew's opinion the description of *Musca combinata* Linnaeus, 1767 could not apply to *Balioptera combinata* as he interpreted it, even with some freedom of interpretation of the original description (Loew, 1864, p. 352). Since he could not indicate another species to which the Linnaean description might apply he retained the Linnaean name for this species even though he suspected that a misidentification was involved. Examination of *Balioptera combinata* from Loew's collection revealed that he had composite type material and that two nominal species currently known as *Geomyza balachowskyi* Mesnil, 1934 and *Geomyza martineki* Drake, 1992 respectively are actually involved. According to Article 67.2.5, *Musca combinata* is deemed not to be originally included since it was doubtfully included. Therefore the designation of *Musca combinata* as the type species of the genus *Balioptera* is invalid. The second included species, *Opomyza apicalis* Meigen, 1830 (p. 109), is herewith designated under Article 70.3.2 of the Code as the type species of the genus *Balioptera* Loew, 1864 and no action by the Commission is necessary.

5. Fallén (1820b, p. 23) erected the genus *Palloptera* to accommodate the species *Musca gangraenosa* Panzer, 1798, *Musca arcuata* Fabricius, 1781 and the new nominal species *P. marginella* and *P. ustulata*. Westwood (1840, p. 150) designated *M. umbellatarum* Fabricius, 1775 as the type species of the genus *Palloptera*. Since *M. umbellatarum* was not originally included in the genus *Palloptera* by Fallén, this type designation is invalid (Article 67.2). Czerny (1934, p. 28) listed *Palloptera ustulata* Fallén, 1820 as the type species of the genus *Palloptera* and thereby validly designated the type species.

6. Fallén (1820a, p. 10) erected the genus *Opomyza* to accommodate *Musca germinationis* Linnaeus, 1758 and two other species. Westwood (1840, p. 152) subsequently designated *Musca germinationis* as the type species of the genus *Opomyza*. However, again our examination of the type material of *Musca germinationis* and the material of *Opomyza germinationis* sensu Fallén, 1820a revealed that the two species are not conspecific. *Opomyza germinationis* sensu Fallén, 1820 is in fact the species that was originally named *Musca combinata* by Linnaeus in 1767.

7. To conserve prevailing usage of the name *O. germinationis* and the current meaning of the generic name *Opomyza*, we propose designation of a neotype for *Musca germinationis* that is conspecific with *Opomyza germinationis* sensu Fallén, 1820 (see Article 75.6). This would also allow the name *M. umbellatarum* Fabricius, 1775 (a junior subjective synonym of *Musca germinationis* Linnaeus, 1758) to be used for the species currently known as *Palloptera umbellatarum* (Fabricius, 1775).

8. In Fallén's opomyzid collection (which is deposited in the Naturhistoriska Riksmuseet, Stockholm) there are two specimens (a male and a female) of *Opomyza germinationis* sensu Fallén, 1810 with accompanying labels. The male specimen with an accompanying label reading '*Opomyza germinationis* ♂ 2.7' is here considered to be the most suitable for designation as a neotype. The probable original type locality (Sweden) of this nominal species would thereby be retained. A summary of the names and nomenclatural acts involved in this application is provided in Table 1.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *Musca germinationis* Linnaeus, 1758, and to designate the specimen labelled '*Opomyza germinationis* ♂ 2.7' in the Naturhistoriska Riksmuseet, Stockholm, as the neotype;
- (2) to place on the Official List of Generic Names in Zoology the name *Opomyza* Fallén, 1820 (gender: feminine), type species by subsequent designation by Westwood (1840) *Musca germinationis* Linnaeus, 1758;
- (3) to place on the Official List of Specific Names in Zoology the name *germinationis* Linnaeus, 1758, as published in the binomen *Musca germinationis* and as defined by the neotype designated in (1) above (specific name of the type species of *Opomyza* Fallén, 1820).

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References

- Cogan, B.H. & Dear, J.P. 1975. Additions and corrections to the list of British acalypterate Diptera. *Entomologist's Monthly Magazine*, **110**: 173-181.
- Coquillett, D.W. 1910. The type species of North American genera of Diptera. *Proceedings of the United States National Museum*, **37**: 499-647.
- Czerny, L. 1934. Lonchaeidae. Pp. 1-40 in E.R. Lindner (Ed.), *Die Fliegen der paläarktischen Region*, vol. 6, part 43.
- Fabricius, J.C. 1775. *Systema entomologiae sistens insectorum classes, ordines, genera, species a diectis synonymis, locis, descriptionibus, observationibus*. 32, 832 pp. Korte, Flensburgi et Lipsiae.
- Fallén, C.F. 1810. *Specimen entomologicum novam Diptera disponendi methodum exhibens*. 26 pp. Berling, Lundiae.
- Fallén, C.F. 1820a. *Opomyzides Sveciae*. 12 pp. Berling, Lundiae.
- Fallén, C.F. 1820b. *Ortalides Sveciae*. 34 pp. Berling, Lundiae.
- Linnaeus, C. 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.
- Linnaeus, C. 1767. *Systema Naturae*, Ed. 12. 1327 pp. Salvii, Holmiae.
- Loew, H. 1864. Die Arten der Gattung *Balioptera*. *Berliner Entomologische Zeitschrift*, **8**: 347-356.
- Meigen, J.W. 1830. *Systematische Beschreibungen der bekannteneuropaischen zweiflügeligen Insekten*, **6**: 1-401.

Nartshuk, E.P. 1984. Flies of Bolshoi Beresovy Island associated with grasses, with description of a new species of the family Opomyzidae. *Trudy zoologicheskogo instituta. Akademii nauk SSSR*. Leningrad, **123**: 51–59. [In Russian].

Westwood, J.O. 1840. Synopsis of British insects. Pp. 1–158 in: *An introduction to the modern classification of insects* . . . Longman, London.

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Table 1. Summary of names and nomenclatural acts in Case 3221

Genus	Name of type species	Name of taxon actually designated as type species	Nomenclatural problem	Solution
<i>Geomyza</i> Fallén, 1810	<i>Musca combinata</i> Linnaeus, 1767	<i>Geomyza hackmani</i> Nartshuk, 1984	Misidentified type species	<i>Geomyza hackmani</i> designated (under Article 70.3) as type species in para. 3
<i>Opomyza</i> Fallén, 1820	<i>Musca germinationis</i> Linnaeus, 1758	<i>Musca combinata</i> Linnaeus, 1767	Misidentified type species	Proposal in this application (under Article 75.6) to designate a neotype for <i>Musca germinationis</i> that is conspecific with <i>Musca combinata</i>
<i>Palloptera</i> Fallén, 1820	<i>Musca umbellatarum</i> Fabricius, 1775	<i>Musca germinationis</i> Linnaeus, 1758	Invalid type species designation (under Article 67.2)	Czerny (1934) designated a valid type species, <i>Palloptera ustulata</i> Fallén, 1820
<i>Balioptera</i> Loew, 1864	<i>Musca combinata</i> Linnaeus, 1767	No valid designation (see para. 4)	Invalid type species designation as <i>Musca combinata</i> was doubtfully included in the genus (see Article 67.2.5) and probably misidentified	<i>Opomyza apicalis</i> Meigen, 1830 designated (under Article 70.3) as type species in para. 4

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).